



2008-06-07

# Critical Infrastructure Protection: Strategic Risk Analysis, Approaches and Methods [June 5-7, 2008] [video]

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# Strategic Risk Analysis

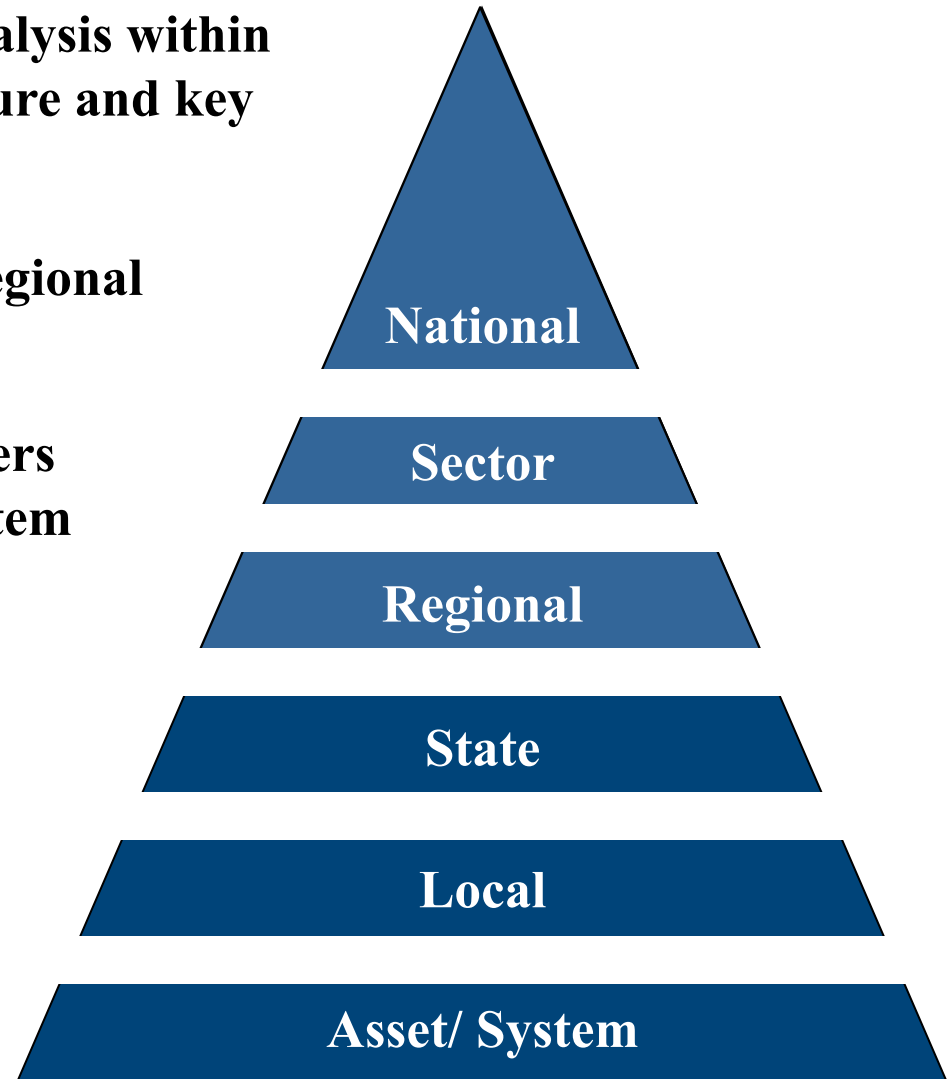
*Approaches and Methods*



Homeland  
Security

# Infrastructure Risk Analysis Responsibilities

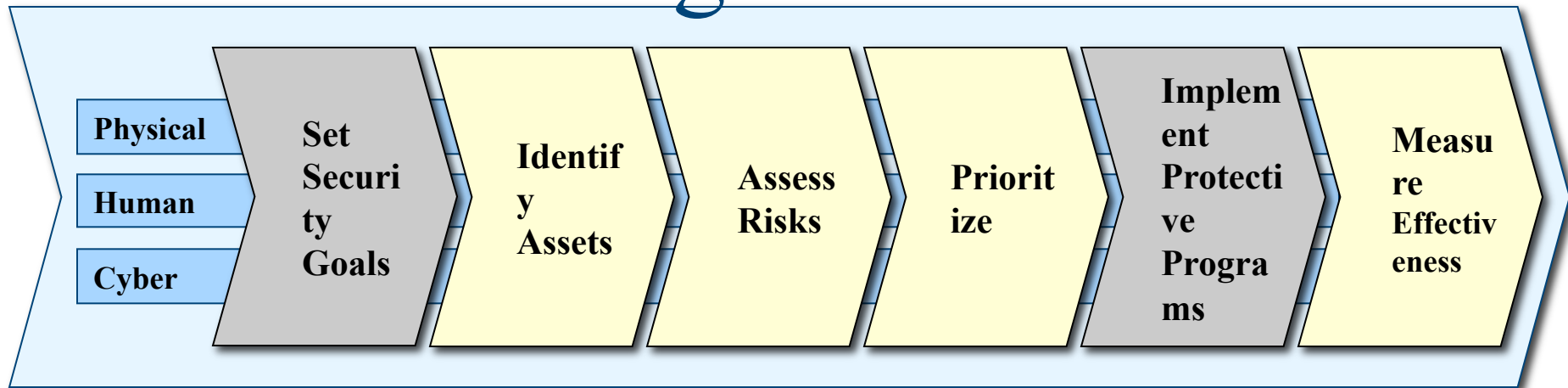
- Conduct risk, and risk-informed analysis within and across all 18 critical infrastructure and key resources (CIKR) sectors.
- Emphasis placed on national, and regional cross-sector analysis.
- Building the capability of our partners to conduct state, local, and asset/system level risk analysis through the Infrastructure Risk Analysis Partnership Program (IRAPP).



# The Foundation

- Risk Management Framework drives our approaches, methodological requirements, and processes:

## The Risk Management Framework



- Responsible for input into the identification, assess risk, prioritize, and measure effectiveness “chevrons”.

# Risk and Risk-Informed Approaches



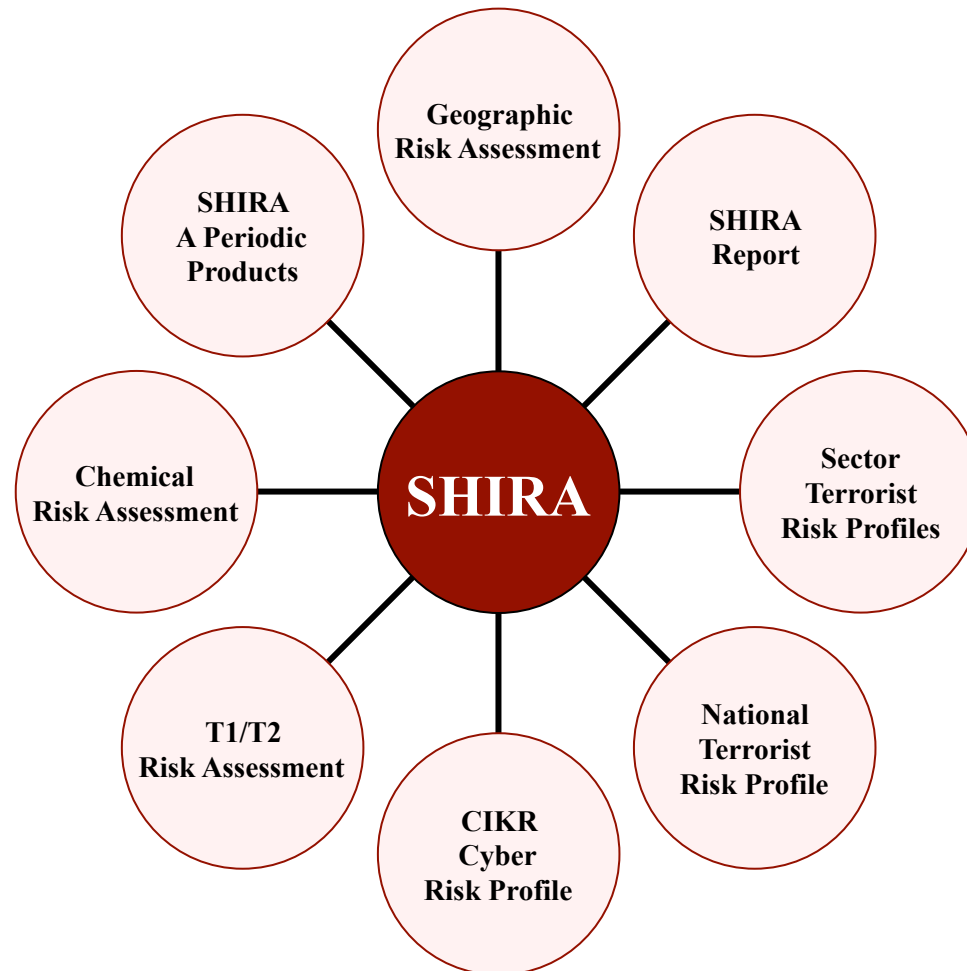


# Strategic Homeland Infrastructure Risk Assessment



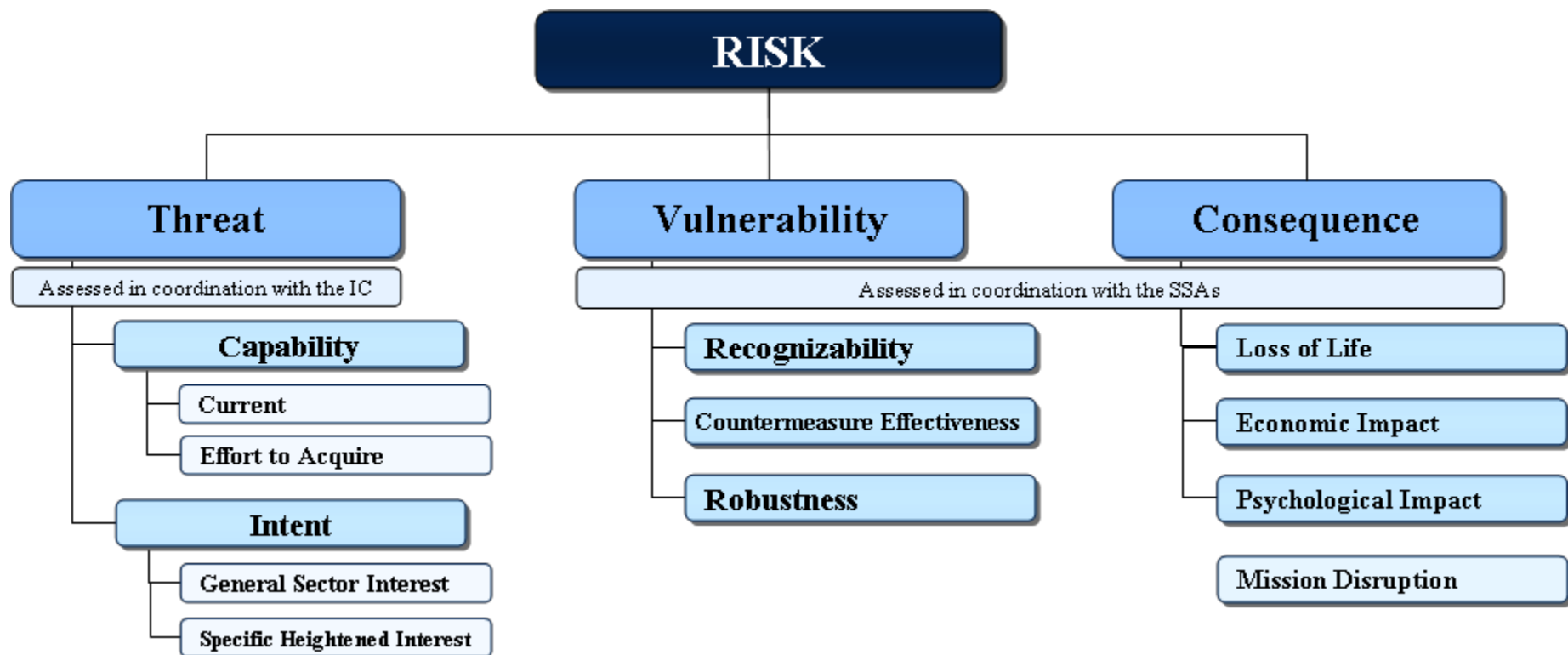
# Process, Not a Product

- Methodology developed to meet the statutory requirement for a National Risk Profile, but evolved into a process that drives numerous products.



# Process Framework

- Data collection conducted on a yearly basis in close coordination and collaboration with public and private sector partners.





# Resulting Analytic Capability

- Assess and compare the terrorist risks to the Nation's CIKR from 18 different attack methods:

## **Aircraft as a Weapon**

### **Assault**

### **Biological Diseases**

- Contagious Human
- Livestock and Crop
- Non-contagious Human

### **Chemical**

### **Cyber**

- Directed Attack
- Non-Directed Attack

### **Food or Water Contamination**

## **Improvised Explosive Devices (IEDs)**

- Single-Target IEDs
- Multi-Target IEDs

## **Maritime Vessels as Weapons**

## **Nuclear Explosive**

## **Radiological Dispersal Device (RDD)**

## **Standoff Weapons**

- Guided
- Unguided

## **Vehicle-Borne Improvised Explosive Device (VBIED)**

- Single-Target VBIEDs
- Multi-Target VBIEDs

- Focus on identifying the “risk drivers” to provide operationally-relevant infrastructure risk analysis.



# Critical Asset Identification



# Critical Asset Identification

- **Two programs:**
  - Tier 1/Tier 2 Program
  - Critical Foreign Dependencies Initiative
- **Prioritization based upon consequences to the Nation should the asset/system be disrupted or destroyed.**
- **Annual process allows the Lists to be adapt, and prevents the issue of dated information driving decision making.**

# Critical Foreign Dependencies Initiative (CFDI)

- **New initiative underway to fulfill the NIPP requirement for a “*comprehensive inventory . . . of foreign CI/KR that may affect systems within this country.*”**
- **Required to develop a prioritized list capable of informing incident and risk management activities.**
- **Examined three types of risks:**
  - Cross-border physical dependencies;
  - Sole or predominantly foreign sourced goods; and
  - Critical supply chain nodes.
- **Prioritization included aspects of risk not typically assessed.**



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